Remarks

This amendment cancels claims 1 – 54 and presents new claims 55 – 70.

The following sections of this preliminary amendment address the objections and rejections set forth by the Examiner in the 07 April 2008 final Office action of the parent application (U.S. Patent Application No. 10/519,299.) These rejections are respectfully traversed, and detailed arguments are set forth below.

To better assist prosecution, applicant includes a photograph of a device according to the pending claims of the present invention. The photograph is not part of the drawing, nor is it a part of the specification: It contains no new matter and is provided as an illustrative aid for prosecution.

Applicant notes the Action's objection to the Information Disclosure Statement for a failure to provide a legible copy of each cited foreign patent document and each non-patent literature. Applicant believes that the supplied foreign patent reference previously submitted at the time of filing the IDS is sufficiently legible to comply with 37 CFR 1.98(a)(2): However, in the interest of efficiency and cooperation, applicant hereby attaches an electronic, pdf-formatted file of the published international application. In addition, a copy of the referenced article in pdf-format appends to this letter. Applicant submits that these two electronic files are fully responsive to the concern raised in the Action in paragraph 1.

Paragraphs 2-15 of the Action raise a number of claim objections. Applicant appreciates the detailed nature of the objection and herewith submits amended and/or canceled and/or newly submitted claims to overcome all objections of record.

Paragraphs 3-30 of the Action state the basis for the rejection of claims 37-54. Particular arguments and/or amendments and/or canceled and/or newly submitted claims submitted herewith fully respond to the specified rejection and detailed remarks follow herein.

The specification (referencing substitute specification rec'd by the USPTO on 11 Feb 2005) supports newly submitted claim 55. Specifically, the method discloses chronologically tracking a plurality of cerebral activities (paragraph 004 at line 3) for a given moment in time (para 0007, line 7); determining a cerebral location corresponding to each one of the plurality of cerebral activities (para 004, line 3, 9-12); filtering the cerebral location corresponding to each one of the plurality of cerebral activities to trace relevant source locations only (para 008 line11); registering a respective data value associated with each of the plurality of filtered cerebral locations for a corresponding cerebral activity (para 008, line 3); tracing a relevant change In the cerebral activities from the filtered cerebral locations (para 0012, (2)) (para 008, line 11); associating the relevant source locations with a region of the brain (para 009) wherein the regions of the brain comprise temporal lobe, hippocampus system, limbic system, frontal lobe, occipital lobe, and parietal lobes (para 0013) of the test subject; grouping the relevant source locations within the regions of the brain; and assessing the test person's knowledge of the test subject by interrelating the grouping of the relevant source location by the regions of the brain.

The specification supports newly submitted claim 56. Specifically, determining the cerebral location further comprises measuring the cerebral field electric potential (para 004, line 4-5).

The specification supports newly submitted claim 57. Specifically, using magnetic encephalogray or electro-encephalograph to measure a neural

discharge that accompanies the at least one cerebral activities. (para 004 – 005).

The specification supports newly submitted claim 58. Specifically, providing stimulus related to sensory or cognitive activities (para 004, line 3-4).

The specification supports newly submitted claim 59: Specifically, providing stimulus related to sensory or cognitive activities further comprises visual, acoustic, or somatic sensory stimuli (para 007, line 12).

The specification supports newly submitted claim 60: Specifically, observing the plurality of cerebral activities using a positron emission tomography (PET) device (para 005, line 2-3).

The specification supports newly submitted claim 61. Specifically, observing the plurality of cerebral activities using a functional magnetic resonance imaging device (para 005, line 4-5).

The specification supports newly submitted claim 62: Specifically, determining a cerebral location further comprises calculating a potential source location (para 008, line 6-7).

The specification supports newly submitted claim 63. Specifically, correlating a level of knowledge of the test person for the test subject based on the number of potential source locations for the plurality of cerebral activities. (para 0013).

Additional support for claim 64 is found in paragraphs 0023 – 25 wherein a computer system is disclosed.

Additional support for claims 65 – 70 were previously discussed in relation to the claims 55 – 64.

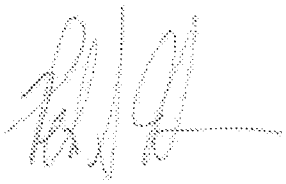
The newly presented claims 55 – 70 overcome the Action's 35 USC 101 and 112 rejections of the now canceled claims 37 -54 by more particularly claiming the applicant's invention. Further, combined with reference to the applicant's published journal article entitled "Pattern of focal y-burst in Chess Players," Nature, Vol 412, 09 Aug. 2001 pg. 603 illustrates the requisite skill of a person of ordinary skill in the art would understand how to measure the potential of brain activity by using the induced voltages recorded from the inductors at a given moment (App. Spec. para 007). The techniques of evincing brain activity are well documented in, for example, cited art by Rosenfeld (U.S. Pat. 9,57,859) and Gevins (U.S. Pat. 5,331,970). Applicant is not attempting to claim the well-understood art of measuring brain activity. Rather, the applicant's invention relates to determining where precisely that brain activity occurs and using the location of brain activity related to specific test sequences to generate a set of response data representing the location of brain activity for each time interval as it relates to the test subject. Then, using the location of groupings of response signals, the present method determines the associated skill level of the test subject for the test sequence (see, e.g. applicant's aforementioned article, or specification at paragraphs 0011, 0013, 0017).

Responding to the Actions rejections pursuant to 35 USC 102(b) and 103(a) citing Rosenfeld and Gevins: the present invention provides a novel, non-obvious method of using the data collected. One possible method of collecting data, according to the present invention, can use the teaching of Gevins (US Pat. No. 5,331,970) wherein an electroencephalographc system records brain waves in that Gevins instructs that currents generated by sources in the brain are volume conducted through brain, cerebral spinal fluid, skull and scalp via recoding electrodes (Gevins, col. 4, lines 14 – 19). However, Gevins does not teach, suggest, or motivate the elements of the claimed invention that use the

location of the source (or more accurately, a plurality of sources resulting from a time-indexed stimulus, being filtered for relevancy) to determine a region of the brain, and then correlate activity with that region of the brain to a test person's skill level (wherein the stimulus is related to a given test subject for the test person). In reference to Rosenfeld (US Pat. No. 5,957,859), wherein two sensing locations measure brain wave activity to determine truthfulness: Rosenfeld provides no motivation, suggestion, or teaching of the claimed invention. Rosenfeld compares the output brain wave of a certain stimulus in a test person compared to a baseline result. In no way is Rosenfeld determining the location of the source of the brain wave. In no way is Rosenfeld filtering relevant source locations, in no way is Rosenfeld grouping the relevant source locations, in no way is Rosenfeld assessing the test persons ability in a test subject based on the grouping of relevant sources related to a specific region of the brain. Further, there is no motivation, suggestion, or teaching in the cited art to combine Rosenfeld and Gevins, and even is such a combination was proper (which it is not) the combined references omit many of the essential, claimed elements of the applicant's invention.

Claims 55 – 70 are pending in the application after this amendment. The amendment, cancellation, and/or withdrawal of claims is not to be considered in any way an indication of applicant's position on the merits of the amended, cancelled, and/or withdrawn claims. No new matter has been added and these amendments should not be objectionable.

Respectfully submitted,



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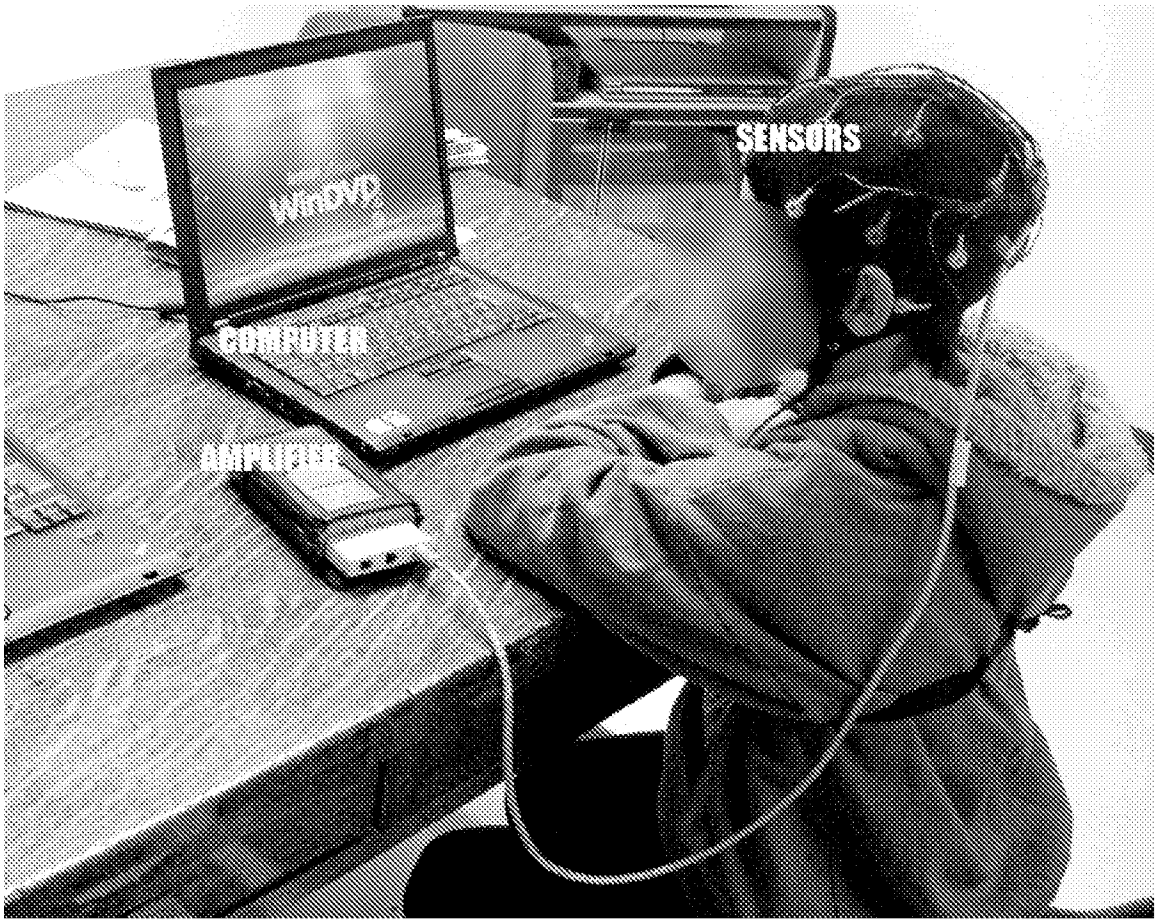
APPENDUM



Photograph illustrating a device according to the present invention.

[NB: not part of the drawing or specification]